

# **Arboricultural Report**

for planning purposes

Holmside 145 Barnet Road Arkley EN5 3JZ

July 2021

140518-PD-21

Project	140518-PD-21 – Holmside
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#### 1 EXECUTIVE SUMMARY

- 1.1 The key components and conclusions of this *Arboricultural Report* (the 'Report') are as follows:
  - The proposal is for the demolition of the existing buildings and the construction of a new residential dwelling with associated landscaping, including tree planting, and all works necessary to facilitate the development.
  - The proposed development requires the removal of five trees and one group of trees.
     In addition to these removals, it is also recommended that 11 trees are removed for arboricultural / landscape reasons due to their poor condition and limited value.
  - The loss of trees and the impact they can have on the immediate local area has been taken into consideration and new high quality tree and hedge planting within similar locations have been proposed.
  - The demolition of existing structures and hard surfacing within the Root Protection
    Areas of a retained trees have been assessed and special working methods can be
    undertaken, as outlined within this report, to minimise any tree related impacts.
  - Retained trees can be successfully protected for the duration of the proposed development works as outlined within this report.

## 2 INTRODUCTION

## Instruction

2.1 This *Arboricultural Report* (the 'Report') has been instructed by *Mr & Mrs Patel* (the 'Client').

#### **Author**

2.2 This report was written by Charles McCorkell. Charles is a senior arboricultural consultant dealing with trees in relation to all forms of human activity including the built environment. He is a Professional Member of the Institute of Chartered Foresters and the Arboricultural Association. He has a BSc Honours Degree in Arboriculture from the University of Central Lancashire and is a LANTRA qualified professional tree inspector.

## Proposed development

2.3 The proposed development at *Holmside* ('the Site') is for the demolition of the existing buildings and the construction of a new residential dwelling with associated landscaping and all works necessary to facilitate the development ('the proposed development'), within the area administrated by *London Borough of Barnet* ('the LPA').

#### Scope

2.4 This report has been provided to assist all parties involved in the planning process, in accordance with *British Standard 5837:2012 - Trees in relation to design demolition and construction - Recommendations* ('BS5837').

## Site survey

- 2.5 The Site was visited, and the trees and other vegetation surveyed, referring to the recommendations of BS5837, on 4/3/2021 by Christopher Wright. The details of this survey are found within the report appendices.
- 2.6 The survey was not an assessment of the health and safety of the trees. However, any trees identified as a current notable risk to people and property will have been highlighted in the schedules, at Appendix B.



Image 1: Aerial view of the property and surrounding area.

## Report preparation

- 2.7 This report has been prepared, with reference to the following supplied documents and information:
  - proposed architectural plans;
  - landscape concept plan;
  - tree preservation order notice; and
  - topographical survey.
- 2.8 The appendices of this report include:
  - Appendix A (plans); and
  - Appendix B (schedules).

#### Definition of terms

- 2.9 The following terms and abbreviations may be used within this Report. These terms are defined by BS5837 as follows, unless provided without quotation marks:
  - Arboricultural Method Statement ('AMS') "methodology for the implementation
    of any aspect of development that is within the root protection area, or has the
    potential to result in loss of or damage to a tree to be retained".
  - Local Planning Authority ('LPA') the planning department of the borough, district, or metropolitan council.

- Root Protection Area ('RPA') "layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
- **Service(s)** "any above- or below-ground structure or apparatus required for utility provision" that may for example include "drainage, gas supplies, ground source heat pumps, CCTV and satellite communications".
- Tree Protection Plan ('TPP') "scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures".

#### 3 SITE INFORMATION

#### Current Site use

3.1 The Site comprises of a two storey detached residential dwelling with a glass and block outbuilding, tennis court, and garage. To the west of the main driveway there is an existing asphalt yard. To the south of this yard and the main dwelling there is a large grass field which is bounded by trees and hedgerows.

## Landscape character

- 3.2 The Site is located on the southern side of Barnet Road, approximately 2km east of Barnet High Street. The surrounding local area comprises of detached dwellings with agricultural fields and woodlands. It is a green leafy area with moderate tree cover.
- 3.3 The Site is within National Character Area (NCA) 111, as defined by Natural England, for the area known as the *Northern Thames Basin* (the Profile'), which is recognised as "a diverse area" that is "rich in geodiversity, archaeology and history and diverse landscapes", and includes areas of settlement and urbanisation that are "mixed in throughout" the NCA. In recent times, changes arising from "increased construction" have placed pressure on the "sense of place", and it is important that future development is planned for in a "sustainable way" that ensures "high design standards".

#### Geotechnical information

- 3.4 The *British Geological Survey* ('BGS') provides on-line information, regarding the general soil properties of an area, including the underlying bedrock and any superficial deposits that overlay the bedrock. This information indicates that the Site is situated upon a bedrock of London clay, over which the recorded superficial deposits are gravel and sand.
- 3.5 There are no publicly available borehole logs within or adjacent to the Site that are provided by the BGS.
- 3.6 Soils where the clay content is significant will tend to encourage tree root growth at shallower depths often, within the upper 600mm of soil¹. Where other soil components are present to greater extents, root morphology may differ, though impermeable layers of heavy compacted clay may restrict penetrative root growth, which may influence how far roots radiate from the stem of the tree to acquire nutrients. However, the superficial deposits of sand and gravel may create conditions for improved drainage and deeper rooting.

## 4 TECHNICAL ARBORICULTURAL DETAILS

#### Landscape details

- 4.1 The tree survey carried out recorded 32 trees, seven hedgerows and two tree groups. The majority of which are located around the perimeter of the site.
- 4.2 The most visually prominent trees are situated adjacent to Barnet Road. On the western side of the main driveway there is group of mature oak and Leyland cypress (T2 to G8), while on the eastern side there is a group of ash trees (T35 to T41). The ash tree surveyed within this area are in poor condition and given the surrounding targets, they pose a high level of risk to people and property.
- 4.3 Within the site there is silver birch of moderate quality. This tree is not visually prominent considering its more internal location and that the frontage boundary oak trees largely screen it from the public road.
- 4.4 The tree and hedge cover located along the eastern, southern and western boundaries provide good cover between neighbouring properties, but visually are not prominent landscape features within the wider local area.



Image 2: View of the oak T3 and Leyland cypress G8 located adjacent to Barnet Road.



Image 3: View of the Leyland cypress and ash trees (T32 to T41) in the northern most corner of the site.



Image 4: View of the Leyland cypress group G31 located along the boundary with the neighbouring property.

#### BS5837 details

- 4.5 The surveyed trees and other vegetation items have been generally categorised, in terms of the arboricultural and landscape criteria as defined in BS5837. These criteria consider the arboricultural merits of individual trees, in addition to the wider value afforded in contributing to the character of the landscape.
- 4.6 In BS5837 terms, the majority of trees and groups have been assessed as being of low and poor quality and value (C & U Category). There is one A Category oak tree

- located adjacent to Barnet Road and nine B Category trees and two hedgerows located along the northern and western boundaries and in the south-eastern corner. Only the B Category silver birch (T9) and C Category apple (T30) are internally located.
- 4.7 Root protection areas as defined in BS5837 have been shown on the drawings attached at Appendix A.

## Statutory protections

- 4.8 The LPA publishes details of its *Conservation Areas* ('CAs') online. According to this information, the Site and any surveyed trees adjacent to the Site are not within a CA.
- 4.9 It has been confirmed that there are *Tree Preservation Orders* ('TPOs') that apply to some of the surveyed trees. The TPO, reference Tre/BA/30, specifies a group of oak trees that are protected at the front of the site. This mostly likely refers to trees T2, T4, T5 and T6 on our tree survey plan. The relevant provisions of *The Town and Country Planning (Tree Preservation)(England) Regulations 2012* therefore apply, to these trees.

## 5 PLANNING POLICY AND GUIDANCE

#### **National**

- 5.1 Planning policy at national level is set out in the government's *National Planning Policy Framework* (the 'NPPF')<sup>2</sup> that was revised in February 2019, which is supported by the *National Design Guide* (the 'NDG')<sup>3</sup> that was published in October 2019.
- 5.2 At this level, policy addresses the key principles of development. At its core, there is a presumption in favour of sustainable development incorporating good and durable design, by combining economic, social, and environmental strands in a balanced manner. Trees comprise an element of green infrastructure, which is one aspect of the environmental strand of sustainability.
- 5.3 In the context of the proposed development, the NPPF provides the following guidance that is relevant in terms of the surveyed trees:
  - Paragraph 170 "Planning policies and decisions should contribute to and enhance the natural and local environment by: ... b) recognising the intrinsic character and beauty of the countryside ... and of trees and woodland".

#### **Greater London**

- 5.4 Planning policy at the *Greater London* level is set out in *The London Plan* (the 'LP'). The current iteration of the LP was adopted, in March 2021.
- 5.5 In the context of the proposed development, the LP provides the following guidance that is relevant in terms of the surveyed trees:
  - Policy G1 Green Infrastructure "London's network of green and open spaces, and green features in the built environment, should be protected and enhanced.
     Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits".
  - Policy G7 Trees and Woodlands "Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy".

<sup>3 -</sup> HMCLG. (2019) National Design Guide, UK: HMSO.

## Local

- 5.6 Planning policy at the local level is currently set out in the Barnet Local Plan, which is comprised of the Core Strategy and Development Management Policies documents (the 'LDP'), published in 2012.
- 5.7 In the context of the proposed development, the current LDP provides the following guidance that is relevant in terms of the surveyed trees:
  - Policy CS5: Protecting and enhancing Barnet's character to create high quality places - "We will ensure that development in Barnet respects local context and distinctive local character creating places and buildings of high quality design."
  - Policy CS7: Enhancing and protecting Barnet's open spaces "In order to maximise the benefits that open spaces can deliver and create a greener Barnet we will work with our partners to improve Barnet's Green Infrastructure. We will create a greener Barnet by: ... maintaining and improving the greening of the environment through the protection of incidental greenspace, trees, hedgerows and watercourses".
  - Policy DM01: Protecting Barnet's character and amenity "Development proposals will be required to include hard and soft landscaping that: ... vi. contributes to biodiversity including the retention of existing wildlife habitat and trees; vii. adequately protects existing trees and their root systems."

#### 6 ARBORICULTURAL IMPACT ASSESSMENT

#### Removals

- 6.1 The proposed development requires the removal of five trees and one group of trees. In addition to these removals, it is also recommended that 11 trees are removed for arboricultural / landscape reasons due to their poor condition and limited value. A large number of these trees have significant structural defects and pose a risk to public highway users.
- 6.2 The silver birch (T9) is the only moderate quality tree proposed to be removed as part of the development works. The loss of this tree will not have a significant impact in visual terms, as it is both located internally within the site and screened by the adjacent more prominent mature oak trees, that are located along the site boundary.
- 6.3 The eastern boundary Leyland cypress tree group (G31) will open up the boundary between the two sites; however, these trees are of low quality and value and appropriate replacement planting has been proposed to mitigate their loss.



Image 5: View of the silver birch T9.

## Mitigation greening

6.4 The proposed development is accompanied by a landscaping concept scheme that specifies new trees and hedgerows. New planting is shown along the site boundaries and adjacent to Barnet Road to replace the poor and low quality trees that are recommended for removal. In addition, a feature tree has been shown within the grassed area of the site to replace the moderate quality birch tree (T9).

## Retained tree juxtapositions

6.5 In relation to the retained trees and vegetation (including any outside of the Site), the proposed development does not place any increased pressure upon these items that may result in inappropriate management (e.g., major branch removal or heavy pruning). The proposed development is therefore considered to be acceptable, regarding its juxtaposition to the retained trees and vegetation.

#### **Demolition works**

- 6.6 The demolition of the detached garage and hard surfaces on the site will have the potential to impact upon retained trees T2, T4, T5, T6. Where these operations are to take place within the root protection area (RPAs) of retained trees special methods of work will be required. These specific areas are highlighted and precautionary measures outlined in the tree protection method statement at Appendix A. A working methodology is supplied below.
- 6.7 The removal of existing hard standing and surfaces is required within the RPAs of retained trees T2, T4, T5, T6, as highlighted on the Tree Protection Plan at Appendix A.
  - All working operations with tree RPAs are required to be carried out under the guidance and supervision of the arboricultural clerk of works.
  - Prior to works commencing, trial holes will be excavated using hand-held tools
    within the RPAs of the trees concerned to establish the depth of the existing hard
    surface material. The results from these trial holes will inform how working
    operations will be undertaken and whether machinery is permitted.
  - The use of machinery to fracture and remove waste material will only be permitted
    if approved by the supervising arboricultural clerk or works and under the careful
    guidance of a banksman.
  - Works will commence at the point closest to the tree and operate backwards until outside the designated RPA to avoid moving over exposed ground.
  - Working from either outside the designated RPA or from an area of existing hard standing or temporary ground protection, the upper surface layer of hard standing will be fractured into small sections.
  - Broken material will be manually lifted and removed to a designated storage area located outside the RPA of retained trees.

- The removal of the sub-base material will be undertaken in a carful manner, ensuring that no excavation works occur beyond the depth of the built material and into the soil layer below.
- The area within the RPAs of T4, T5, T6 will be restored to grass. Once the hard standing has been removed, topsoil will be spread across this area and it will be irrigated to prevent root desiccation from occurring.
- New hard surfacing will replace the existing hard surfacing within the RPA of T2. No roots will be exposed during this process. If required, ground protection mats must be installed.



Image 6: View of the existing hard standing to be removed within the RPAs of oak trees T4 to T6.

- 6.8 The removal of the existing garage within the RPA of retained tree T4 as highlighted on the Tree Protection Plan at Appendix A.
  - All working operations within the tree RPA are required to be carried out under the guidance and supervision of the arboricultural clerk of works.
  - The existing garage will be demolished away from the crown of the tree using the
     'top down, pull back' method of works.
  - All loose material will be pulled away from the tree and stored outside its RPA for transportation off site.
  - The existing floor slab of the garage will be fractured, broken material will be manually lifted and removed to a designated storage area outside the tree's RPA.

- The removal of any sub-base or footings will be undertaken manually and in a carful manner, ensuring that no excavation works occur beyond the depth of the built material and into the soil layer below.
- Any roots exposed due the removal of hard standing will be covered with a layer
  of topsoil and the area irrigated to prevent root desiccation from occurring.

#### Construction works

6.9 The construction of the main built element of the proposals will not require excavation or other works within the root protection areas (RPAs) of retained trees. No special measures are therefore required to prevent root damage. However, it will be necessary to ensure that site operations do not cause damage to trees or the soil environment upon which they rely. Details of the measures to be taken to protect trees are included at Appendix A.

#### Landscaping works

6.10 Landscaping operations will typically take place at the end of the construction period. These works will normally require the removal of protective fencing to facilitate access for works. There is a risk that plant and machinery may damage soil structure where tree roots are growing. However, these risks can be managed by maintaining good professional standards of work and working to a method statement. The principle of avoiding soil disturbance or changes in levels within the RPAs of retained trees should be followed unless arboricultural advice has been sought.

#### Services and utilities

- 6.11 At this stage of the planning process, details pertaining to the location of new service runs and any required access to existing runs are not established. In this context, it is not possible to determine the level of impact of this element of the designs to the retained trees.
- 6.12 In the eventuality that access to existing service runs or to install new service runs involves work operations within the RPA of the retained trees, the impact to the trees can be managed by following the recommendations of BS5837, which includes as a normative reference the *National Joint Utilities Guidance*<sup>4</sup>.

## 7 CONCLUSIONS

## Arboricultural impacts

7.1 Taking into account the above impacts and mitigation, our assessment is that while the proposed loss of trees will have a minor impact in the short term the retained good quality trees can be protected and high quality proposed new planting will compensate for these losses, resulting in a neutral impact in the medium term with a positive impact in the longer term. The proposals are therefore considered sustainable in landscape terms.

## Landscape impacts

7.2 The proposed new planting includes the establishment of new trees and hedgerows. This planting will be of high quality and has been located in positions where they will be able to grow to maturity. Over the long term, new tree planting has the potential to enhance the amenities of the property and contribute to the character and appearance of the local area.

## Policy compliance

7.3 The proposed development has complied with local planning policies, in relation to trees. Specifically, trees have been properly considered in formulating these proposals and alterations have been made to accommodate the retention of trees and to minimise impacts on retained trees. New tree planting is proposed as part of the development proposals and these trees are located in positions where they can make a contribution to public amenity.

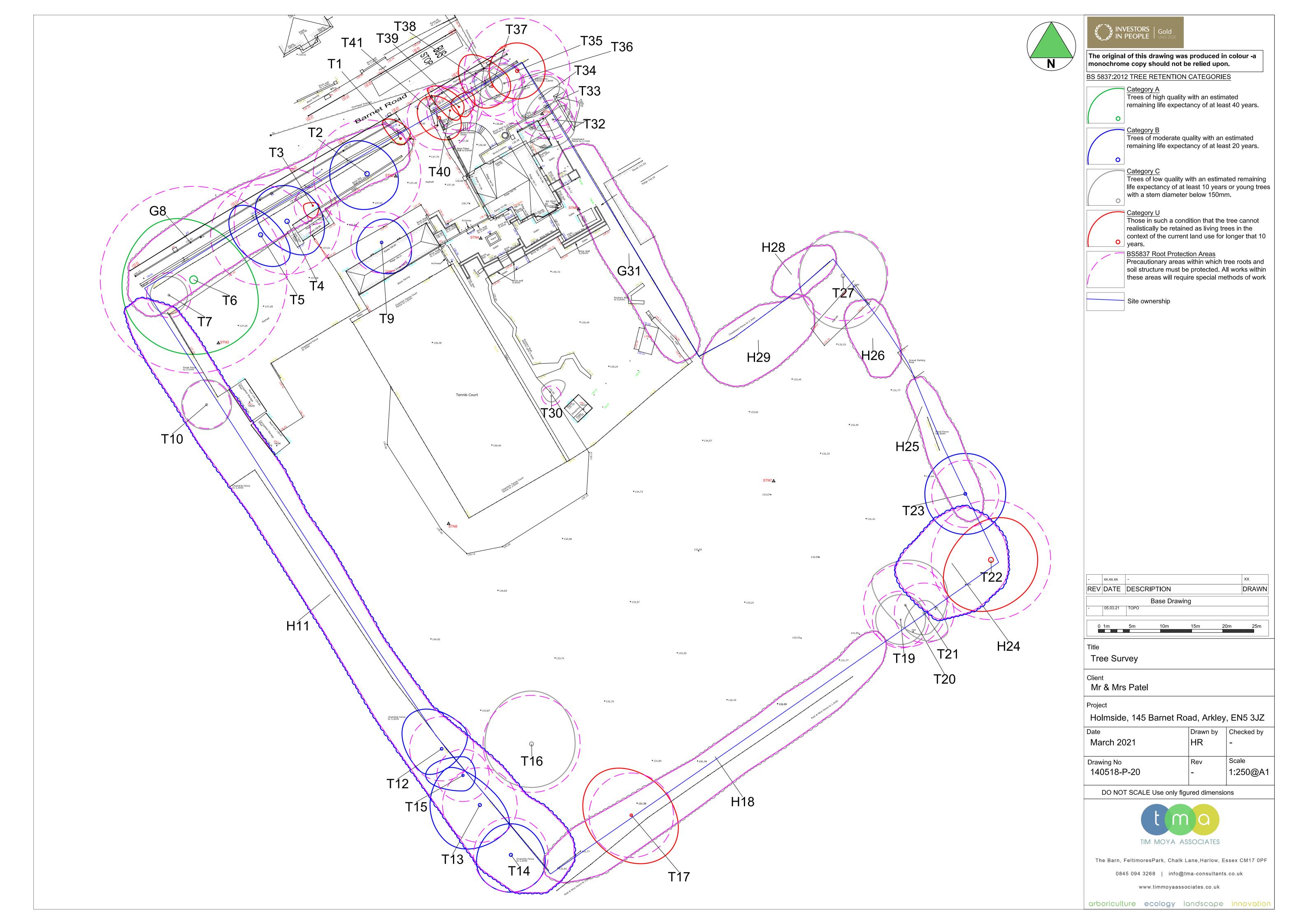
## 8 APPENDICES CONTENTS

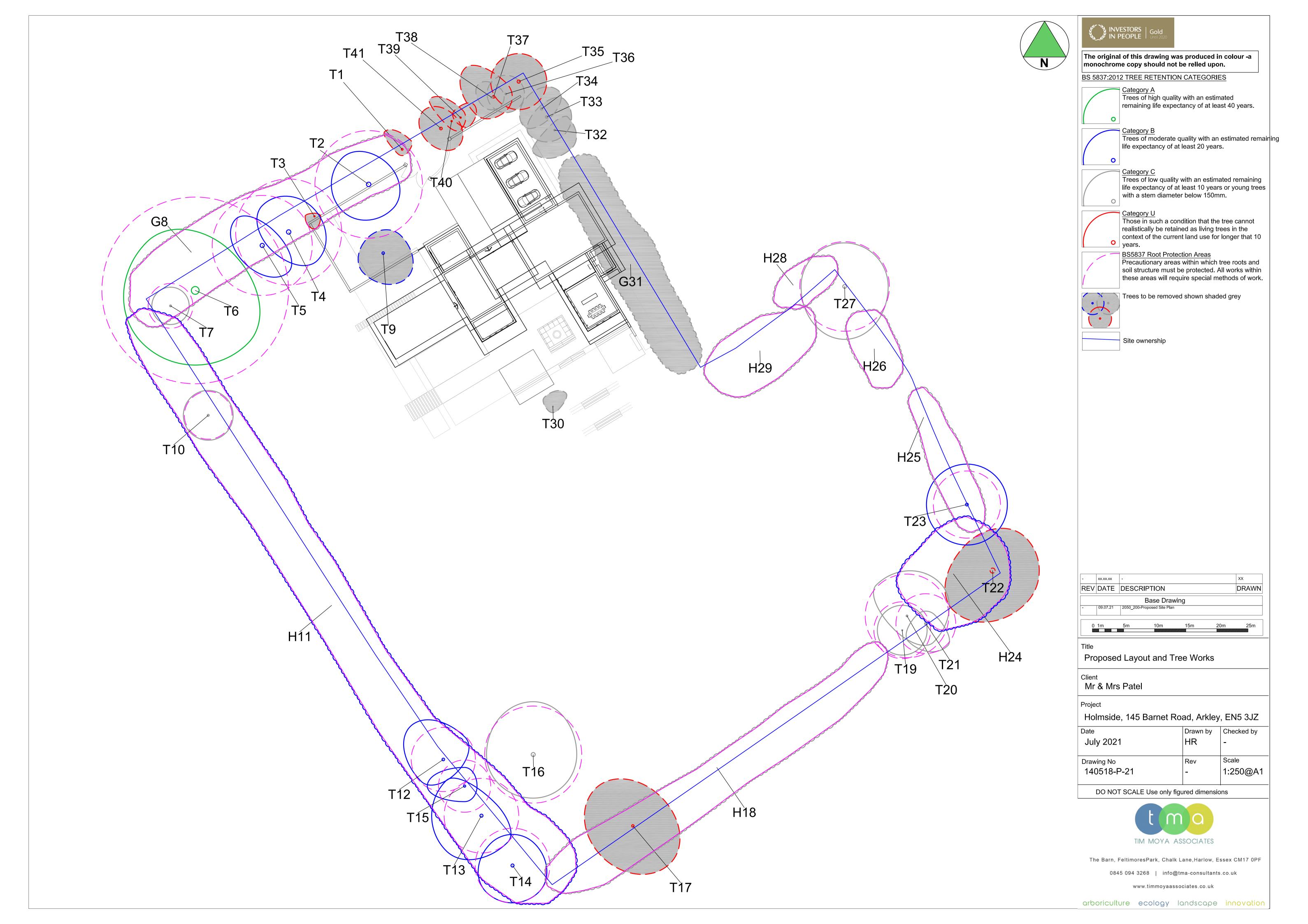
#### **APPENDIX A - PLANS**

- 140518-P-20 Tree Survey
- 140518-P-21 Proposed Layout
- 140518-P-22 Tree Protection

#### **APPENDIX B - SCHEDULES**

- 140518-PD-20 Tree Schedule
- 140518-PD-22 Tree Work Schedule





## ARBORICULTURAL METHOD STATEMENT

## TREE WORKS

Only the tree works specified within this report may be undertaken, after the appropriate planning consents have been acquired and in order to implement the consent. In the event of any uncertainty regarding tree works, the retained arboricultural consultant will be consulted and where appropriate the Local Planning Authority.

All tree works will be undertaken, in accordance with the best-practice recommendations provided in BS 3998:2010. The statutory responsibilities as outlined in the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010 will also be complied with.

#### TREE PROTECTION FENCING

The tree protection fencing and (where appropriate) ground protection, will be installed as specified within this plan, prior to the commencement of any demolition and construction works. No plant or materials will be delivered to site prior to the construction of the tree protective fencing other than those required to install the tree protection fencing. On every third panel, a sign will be fixed that states "Tree Protection Zone (TPZ). Keep out. Any incursion into this area must be agreed in advance with the retained arboricultural consultant and Local Planning Authority." An example of this sign is provided within this

The position of the tree protection fencing must not be amended and no individual panels will be uncoupled, without the agreement of the retained arboricultural consultant and/or Local Planning Authority.

#### SERVICES AND DRAINAGE

The installation of drainage runs, manholes, storage tanks, and utilities will be positioned outside the root protection areas of retained trees. If the installation of new services and drainage runs are required within the root protection areas (RPAs) of retained trees, all methods of working will follow the guidance within Table 3 of BS 5837 or the National Joint Utilities Group's (NJUG) Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees (volume 4, issue 2).

Excavation works within the RPAs of retained trees will be undertaken manually with the use of hand tools only (under the supervision of the retained arboricultural consultant), unless otherwise agreed in advance by the retained arboricultural consultant. It is recommended that an air lance - and if required a soil vacuum - is used, to excavate service trenches within RPAs. If soil conditions are not suitable for this method of excavation, alternative hand tools can be used once agreed in advance by the retained arboricultural consultant.

All roots greater than 25mm in diameter will be retained and will immediately be wrapped in hessian or another appropriate material, to prevent desiccation and temperature fluctuations. Roots will be pushed aside to allow for runs to be installed, where this is practical and without causing root damage.

No machinery will be permitted within the TPZ, at any time, unless agreed in advance with the retained arboricultural consultant.

## NO-DIG CONSTRUCTION AREAS

Areas that will require no-dig methods of construction are shown within this plan. Working methods within these areas will comply with the details outlined in the main report and in advance of works being undertaken will be agreed with the retained arboricultural consultant.

## ARBORICULTURAL CLERK OF WORKS

The monitoring of activities at the Site will occur, at the following points:

- To sign-off the tree protection measures;

consultant, to determine the appropriate response.

- To sign-off the tree works;
- At other points as specified within this Report and the TPP.

It will be the responsibility of the main contractor (or other managing individual or organisation) to confirm the date and time of attendance, providing at least five working days of notice so that the project arboriculturist can confirm attendance.

## GENERAL PROTECTION METHODS

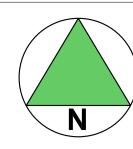
No fires will be permitted, within 20m of the crown of any tree or other area of vegetation that includes hedgerows and groups of trees.

No changes in soil level will occur, within the TPZs and RPAs, without agreement in advance with the retained arboricultural consultant.

The TPZs will at all times remain free of liquids, materials, vehicles, plant, and personnel, without agreement in advance with the retained arboricultural consultant.

Any liquid materials spilled on site will immediately be cleared up. If liquids are spilled within 2m of any TPZ or RPA, the incident will immediately be reported to the retained arboricultural consultant, to determine the appropriate response.

All damage to trees and other vegetation will immediately be reported to the retained arboricultural





The original of this drawing was produced in colour -a monochrome copy should not be relied upon.



Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Trees of moderate quality with an estimated

remaining life expectancy of at least 20 years.

Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.

<u>Category U</u>

Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 o years.

> BS5837 Root Protection Areas Precautionary areas within which tree roots and

> soil structure must be protected. All works within these areas will require special methods of work.

Site ownership

Position of protective fencing and tree protection zones.

Existing hard standing to be refurbished, no excavation works beyond existing sub base layer.

Area of existing hard standing to be removed and restored to garden area. No excavation works permitted beyond existing sub-base layer. Works carried out under arboricultural supervision.

Existing garage to be demolished using the top down, pull back method of works. No excavation works permitted beyond existing sub-base layer. Works to be carried out under arboricultural supervision.

H29

H18

xx.xx.xx REV DATE DESCRIPTION DRAWN Base Drawing 09.07.21 | 2050\_200-Proposed Site Plan

Tree Protection Plan

Mr & Mrs Patel

Holmside, 145 Barnet Road, Arkley, EN5 3JZ

Drawn by Checked by July 2021 Drawing No Rev 140518-P-22 1:250@A1

DO NOT SCALE Use only figured dimensions

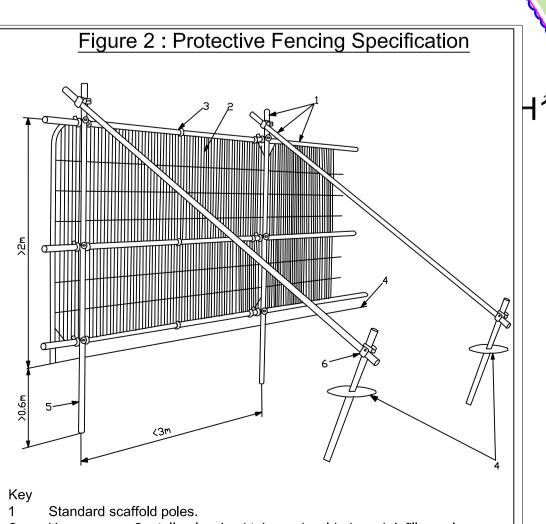


The Barn, FeltimoresPark, Chalk Lane, Harlow, Essex CM17 0PF

0845 094 3268 | info@tma-consultants.co.uk

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G8

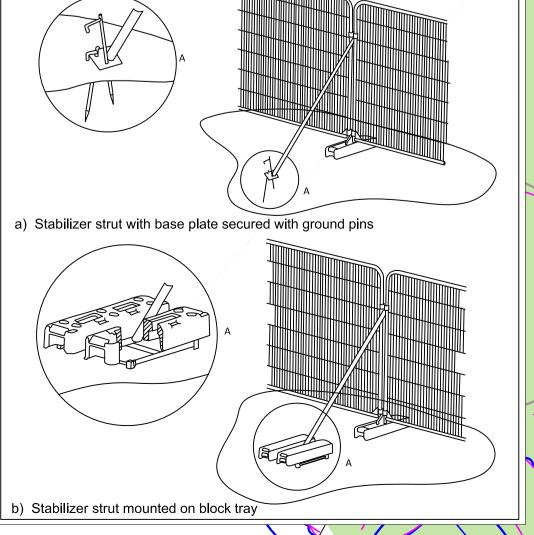
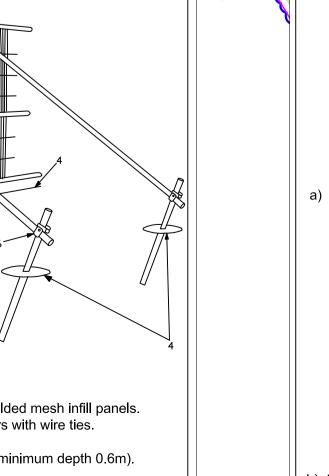


Figure 3 Examples of above-grounds stabilizing systems



**T4** 

Heavy gauge 2m tall galvanized tube and welded mesh infill panels. Panels secured to upright and cross-members with wire ties. Ground level. Uprights driven into the ground until secure (minimum depth 0.6m). Standard scaffold clamps.

arboriculture ecology landscape innovation

## 140518-PD-20 Tree schedule (BS5837)



#### 140518 - Holmside

Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems	N		OWN E S			, 	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m <sup>2</sup> )	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	Fraxinus excelsior (Ash)	7.0				2.0	1.	0	1.0		4.0	3.0		Mature	Structural condition Poor. Physiological condition Dead.	04/03/2021			0-10	U
Tree T2	1	Quercus robur (English Oak)	15.0	72	1		4.5	5	5	6.0		6.0	4.5	6.5 SE	Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Deadwood - Major. Form - Spreading crown.	04/03/2021	234.5	8.6	20-40	B1/B2
Tree T3	1	Crataegus monogyna (Common Hawthorn/Quick/May)	5.5	25 COM	2	0.5		1.0	2.0	0	1.5		2.0		Mature	Structural condition Poor. Physiological condition Poor. Deadwood - Major.	04/03/2021	28.3	3.0	0-10	U
Tree T4	1	Quercus robur (English Oak)	16.0	71	1		5.5	6	5	4.0		6.0	3.0	4 S	Mature	Structural condition Fair. Physiological condition Fair. Base / stems obscured - Vegetation. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant.	04/03/2021	228.0	8.5	20-40	B1/B2
Tree T5	1	Quercus robur (English Oak)	14.0	67	1		3.0	6	0	4.0		6.0	5.0	4 S	Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Base / stems obscured - Vegetation. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant.	04/03/2021	203.1	8.0	20-40	B1/B2
Tree T6	1	Quercus robur (English Oak)	21.0	125	1		8.5	12	.0	12.0	1	11.0	3.0		Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Base / stems obscured - Vegetation. Deadwood - Minor. Form - Spreading crown. Ivy or climbing plant.	04/03/2021	706.9	15.0	40+	A1/A2
Tree T7	1	llex aquifolium (Holly)	7.5	30	1	3.0		3.0	3.0	0	3.0		0.0		Mature	Structural condition Fair. Physiological condition Fair. Base / stems obscured - Vegetation. Competition - Adjacent trees.	04/03/2021	40.7	3.6	10-20	C1/C2

Stem green Estimated value

Stem **AVE** Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Tree ID Group G8	5	. Species  Ilex aquifolium (Holly)  Crataegus monogyna (Common Hawthorn/Quick/May)  x Cupressocyparis leylandii (Leyland Cypress)	(m) Height (m) 15.0	Stem diameter (cm)	No. of Stems		ROWN S		AD (m)	v NW	O Crown clearance	L.B. (m)	Life stage Mature	Condition Notes  Structural condition Fair. Physiological condition Fair. Access to inspect base - Restricted / obscured. Base / stems obscured - Vegetation. Hedgerow - Neglected / overgrown. Ivy or climbing plant. Numbers indicative.	Survey date 04/03/2021	RPA (m <sup>2</sup> )	RPR (m)	D. Life Company (yrs)	S BS Category
Tree T9	1	Betula pendula (Silver Birch)	16.0	41	1	4.0	5.	5	4.5	3.5	1.5		Mature	Structural condition Fair. Physiological condition Good.	04/03/2021	76.0	4.9	20-40	B1/B2
Tree T10	1	Fraxinus excelsior (Ash)	13.0	32	1	4.0	4.0	4.0	4.	0	6.0		Early Mature	Structural condition Good. Physiological condition Fair. Access to inspect base - Not possible.	04/03/2021	46.3	3.8	10-20	C1/C2
Hedge H11		llex aquifolium (Holly)  Sambucus nigra (Elder)  Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	20 AVE							0.0		Mature	Structural condition Fair. Physiological condition Fair. Fallen tree / trees - Whole tree. Hedgerow - Neglected / overgrown. Numbers indicative.	04/03/2021			20-40	B2/B3
Tree T12	1	Quercus robur (English Oak)	14.0	43	1	5.0	3.	0	5.0	7.5	6.5		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Leaning trunk - Minor.	04/03/2021	83.6	5.2	20-40	B2
Tree T13	1	Quercus robur (English Oak)	13.0	50	1	3.0	6.	0	8.0	8.0	3.0		Early Mature	Structural condition Fair. Physiological condition Fair.	04/03/2021	113.1	6.0	20-40	B1/B2

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems	N			READ (		NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m <sup>2</sup> )	RPR (m)	Life expectancy (yrs)	BS Category
Tree T14	1	Quercus robur (English Oak)	15.0		1		5.0	6.0	6.0		5.0	5.0		Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible.	04/03/2021		6.0	20-40	B1/B2
Tree T15	1	Quercus robur (English Oak)	14.0	35	1	3.0	2.0		2.5	6.0		6.5		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees.	04/03/2021	55.4	4.2	20-40	B1/B2
Tree T16	1	Salix caprea (Goat Willow/Great Sallow)	10.0	65	1	8.5	7.0		7.0	7.5		0.0		Mature	Structural condition Poor. Physiological condition Good. Decay / structural defect - Bole. Fork - Weak with included bark. Form - Spreading crown.	04/03/2021	191.1	7.8	10-20	C1/C2
Tree T17	1	Quercus robur (English Oak)	13.0	56 COM	2		6.5	8.5	7.0	)	8.5	0.5		Early Mature	Structural condition Poor. Physiological condition Good. Decay / structural defect - Base. Decay / structural defect - Extensive. Decay / structural defect - Major. Decay / structural defect - Bole. Fork - Cracked.	04/03/2021	144.8	6.8	0-10	U
Hedge H18	2	llex aquifolium (Holly) Salix sp. (Willow sp.)	5.0	15 AVE								0.0		Mature	Structural condition Poor. Physiological condition Fair. Hedgerow - Neglected / overgrown. Numbers indicative.	04/03/2021			10-20	C2/C3
	5	Quercus robur (English Oak)																		
	37	Crataegus monogyna (Common Hawthorn/Quick/May)																		
Tree T19	1	Fraxinus excelsior (Ash)	7.0	38 COM	5	4.0	4.0		4.0	4.0		1.0		Mature	Structural condition Poor. Physiological condition Fair. Decay / structural defect - Base. Decay / structural defect - Bole. Multi-stemmed.	04/03/2021	65.4	4.6	10-20	C2

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Generated By

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems			READ (m)	/ NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m <sup>2</sup> )	RPR (m)	Life expectancy (yrs)	BS Category
Tree T20	1 Salix caprea (Goat Willow/Great Sallow)	11.0	56 COM	4	7.5	6.0	3.0	7.0	0.0		Mature	Structural condition Poor. Physiological condition Good. Decay / structural defect - Base. Decay / structural defect - Bole. Form - Spreading crown. Fallen tree / trees - Partial collapse.	04/03/2021		6.7	10-20	C2
Tree T21	1 Betula pendula (Silver Birch)	13.0	40	1	2.0	5.0	4.0	2.0	3.0		Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible.	04/03/2021	72.4	4.8	10-20	C2
Tree T22	1 Fraxinus excelsior (Ash)	14.0	80	1	7.5	7.5	9.0	6.0	2.0		Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Arboricultural work - Historic. Base / stems obscured - Vegetation. Decay / structural defect in crown limb / limbs - Localised. Deadwood - Minor. Decay / structural defect - Base. Decay / structural defect - Bole. Fungal fruiting body - structural decay suspected. Form - Poor crown structure. Form - Spreading crown. Ivy or climbing plant. Old fallen fruit body of Inonotus hispidus at base of tree on the ground - likely crown decay.		289.5	9.6	0-10	U
Tree T23	1 Quercus robur (English Oak)	14.0	45	1	6.5	6.5	6.5 6.9	5	3.0		Early Mature	Structural condition Fair. Physiological condition Good. Access to inspect base - Restricted / obscured. Base / stems obscured - Vegetation. Form - Spreading crown. Ivy or climbing plant.	04/03/2021	91.6	5.4	20-40	B1/B2
Hedge H24	25 Prunus spinosa (Blackthorn/Sloe)  5 Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	17 AVE						0.0		Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Numbers indicative.	04/03/2021			20-40	B2/B3
Hedge H25	15 Crataegus monogyna (Common Hawthorn/Quick/May)	5.0	15 AVE						0.0		Mature	Structural condition Poor. Physiological condition Fair. Hedgerow - Neglected / overgrown. Numbers indicative.	04/03/2021			10-20	C2

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Tree ID Hedge H26	No. Species  9 x Cupressocyparis leylandii (Leyland Cypress)	% Height (m)	(cm) Stem diameter (cm)	No. of Stems		N SPREA	AD (m)	NW	o Crown clearance o (m)	L.B. (m)	Life stage Mature	Condition Notes Structural condition Poor. Physiological condition Fair. Hedgerow - Neglected / overgrown. Numbers indicative.	Survey date 04/03/2021	RPA (m <sup>2</sup> )	RPR (m)	D Life C expectancy (yrs)	53 BS Category
	Sambucus nigra     (Elder)      Crataegus monogyna     (Common     Hawthorn/Quick/May)																
Tree T27	1 Fraxinus excelsior (Ash)	13.0	60	1	7.0 7.0	8.5	7.0		2.0	2 S	Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Restricted / obscured. Arboricultural work - Historic. Base / stems obscured - Vegetation. Decay / structural defect in crown limb / limbs - Localised. Deadwood - Minor. Form - Spreading crown. Ivy or climbing plant.		162.9	7.2	10-20	C2
Hedge H28	8 x Cupressocyparis leylandii (Leyland Cypress)	9.5	25 AVE						3.0		Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Numbers indicative.	04/03/2021			10-20	C2
Hedge H29	15 x Cupressocyparis leylandii (Leyland Cypress)	8.5	25 AVE						0.0		Mature	Structural condition Fair. Physiological condition Good. Hedgerow - Neglected / overgrown. Numbers indicative.	04/03/2021			10-20	C2
Tree T30	1 Malus sp. (Apple sp.)	4.0	13	1	3.0	1.0	1.0	2.0	1.0		Mature	Structural condition Poor. Physiological condition Fair.	04/03/2021	7.6	1.6	10-20	C2

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Tree ID	N	o. Species	Height (m)	Stem diameter (cm)	No. of Stems		OWN SPRE		NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m <sup>2</sup> )	RPR (m)	Life expectancy (yrs)	BS Category
Group G31	_	x Cupressocyparis leylandii (Leyland Cypress)  Sambucus nigra (Elder)  Malus sp. (Apple sp.)	13.0	30 AVE	_					0.0	_	Mature	Structural condition Fair. Physiological condition Good. Access to inspect base - Restricted / obscured. Base / stems obscured - Vegetation. Competition - Adjacent trees. Numbers indicative.	04/03/2021			10-20	C2
Tree T32	1	Fraxinus excelsior (Ash)	11.0	26	1	3.0	4.0	5.0	1.0	3.5		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Form - Poor crown structure.	04/03/2021	30.6	3.1	10-20	C2
Tree T33	1	x Cupressocyparis leylandii (Leyland Cypress)	13.0	43	1	4.0	4.0	4.0	2.0	2.0		Mature	Structural condition Poor. Physiological condition Good. Decay / structural defect - Bole.	04/03/2021	83.6	5.2	10-20	C2
Tree T34	1	x Cupressocyparis leylandii (Leyland Cypress)	12.0	37	1	4.0	2.0	4.0	3.0	2.0		Mature	Structural condition Fair. Physiological condition Good.	04/03/2021	61.9	4.4	10-20	C2
Tree T35	1	Fraxinus excelsior (Ash)	15.0	70 COM	2	4.5 4	.5 4.5	4.5		6.0		Mature	Structural condition Poor. Physiological condition Poor. Buttresses / buttress roots - Major adaptive growth / strong development. Deadwood - Major. Decay / structural defect - Base. Decay / structural defect - Extensive. Decay / structural defect - Bole. Form - Poor crown structure. Exposed roots.	04/03/2021	226.2	8.5	0-10	U
Tree T36	1	llex aquifolium (Holly)	9.0	27	1	3.0 3	.0 3.0	3.0		0.0		Mature	Structural condition Fair. Physiological condition Fair.	04/03/2021	33.0	3.2	10-20	C2

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Tree ID Tree T37	Ne 1	o. Species Fraxinus excelsior (Ash)	12.0 Height (m)	O Stem diameter (cm)	1 No. of Stems	_	CRON	WN SPRE	SW W 4.0	/ NW 6.5	G Crown clearance (m)	L.B. (m)	Life stage Mature	Condition Notes  Structural condition Poor. Physiological condition Poor. Access to inspect base - Restricted / obscured. Base / stems obscured - Vegetation. Deadwood -	Survey date 04/03/2021	72.4 (m <sup>2</sup> )	(m) NPR (m)	o Life c expectancy (yrs)	☐ BS Category
_				0.5					2.0					Minor. Decay / structural defect - Base. Decay / structural defect - Bole.	0.4/0.0/0.004	00.0		10.00	
Tree T38	1	llex aquifolium (Holly)	6.0		1		2.0	2.0	2.0	3.0	0.0		Mature	Structural condition Poor. Physiological condition Fair.					
Tree T39	1	Fraxinus excelsior (Ash)	9.5	31 COM	2	,	3.0	2.0	1.0	1.5	7.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Restricted / obscured. Base / stems obscured - Vegetation. Decay / structural defect - Base. Decay / structural defect - Bole.	04/03/2021	43.8	3.7	0-10	U
Tree T40	1	Fraxinus excelsior (Ash)	10.0	31 COM	2		2.5	2.0	1.0	5.0	3.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Restricted / obscured. Base / stems obscured - Vegetation. Decay / structural defect - Base. Decay / structural defect - Open cavity / cavities. Decay / structural defect - Bole.	04/03/2021	43.8	3.7	0-10	U
Tree T41	1	Fraxinus excelsior (Ash)	13.0	43	1		3.0	4.0	3.0	4.0	2.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Restricted / obscured. Base / stems obscured - Structure. Base / stems obscured - Vegetation. Buttresses / buttress roots - Minor adaptive growth / moderate development. Decay / structural defect - Base. Decay / structural defect - Bole. Ivy or climbing plant. Exposed roots.	04/03/2021	83.6	5.2	0-10	U

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

Stem COM Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

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Category and definition	Criteria (including subcategories	s where appropriate)	ldentificati	on on plan
Trees unsuitable for retention (see not	ce)			
Category U  Those in such a condition that they cannot realistically be retained as living trees in the context of the current land us for longer than 10 years	including those that will become unviloss of companion shelter cannot be  * Trees that are dead or are showing s  Trees infected with pathogens of sign suppressing adjacent trees of better	signs of significant, immediate, and irreversible on hificance to health and/or safety of other trees n	g. where, for whatever reason, the overall decline earby, or very low quality trees	
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A	Tree that are particularly good examples of	Trees, groups or woodlands of particular	Trees, groups or	GREEN
Trees of high quality	their species, especially if rare or unusual; or those that are essential components of	visual importance as arboricutural and/or landscape features.	woodlands of significant conservation, historical,	OKLLIN
with an estimated remaining life expectancy of at least 40 years	groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).		commemorative or other value (e.g. veteran trees or wood-pasture).	
Category B	Trees that might be included in category A,	Trees present in numbers, usually growing	Trees with material	BLUE
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	conservation or other cultural value.	BEGE
Category C  Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	GREY

## 140518-PD-22 - Planning Tree Works Schedule

## Holmside, 145 Barnet Road, Arkley, EN5 3JL



ID	No.	/ Species	BS5837 Category	Purpose of works Recommended works	Status
T1	1	Fraxinus excelsior Ash	U	Good arboricultural practice Fell - Ground level.	Proposed
T3	1	Crataegus monogyna Common Hawthorn/Quick/May	U	Good arboricultural practice Fell - Ground level.	Proposed
T9	1	<i>Betula pendula</i> Silver Birch	B1/B2	To facilitate development Fell - Ground level.	Proposed
T17	1	<i>Quercus robur</i> English Oak	U	Good arboricultural practice Fell - Ground level.	Proposed
T22	1	Fraxinus excelsior Ash	U	Good arboricultural practice Fell - Ground level.	Proposed
T30	1	Malus sp. Apple sp.	C2	To facilitate development Fell - Ground level.	Proposed
G31	3	Malus sp. Apple sp. Sambucus nigra	C2	To facilitate development Fell - Ground level.	Proposed
	20	Elder  x Cupressocyparis leylandii Leyland Cypress			
T32	1	Fraxinus excelsior Ash	C2	To facilitate development Fell - Ground level.	Proposed
T33	1	x Cupressocyparis leylandii Leyland Cypress	C2	To facilitate development Fell - Ground level.	Proposed
T34	1	x Cupressocyparis leylandii Leyland Cypress	C2	To facilitate development Fell - Ground level.	Proposed
T35	1	Fraxinus excelsior Ash	U	Good arboricultural practice Fell - Ground level.	Proposed
T36	1	<i>Ilex aquifolium</i> Holly	C2	Landscape improvement Fell - Ground level.	Proposed
T37	1	Fraxinus excelsior Ash	U	Good arboricultural practice Fell - Ground level.	Proposed
T38	1	<i>Ilex aquifolium</i> Holly	C2	Landscape improvement Fell - Ground level.	Proposed
T39	1	Fraxinus excelsior Ash	U	Good arboricultural practice Fell - Ground level.	Proposed
T40	1	Fraxinus excelsior Ash	U	Good arboricultural practice Fell - Ground level.	Proposed



ID	No	. / Species		Purpose of works Recommended works	Status
T41	1	Fraxinus excelsior	U	Good arboricultural practice	
		Ash		Fell - Ground level.	Proposed

## Tree work analysis (trees and trees in groups)

	Good arboricultural practice	Landscape improvement	To facilitate development	Total
Fell - Ground level	9	2	6	17
Total	9	2	6	17



arboriculture ecology landscape innovation

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